

Joh Fee 4716

# INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 31520 SDG No. MYOSK8 SDG Nos. To Follow \_\_\_\_\_ Date Recvd 3/27/03

ITEMS	YES	NO	N/A
3.5" DISKETTE	<input checked="" type="checkbox"/>		
<b>CUSTODY SEALS</b>			
1. Present on package?	<input checked="" type="checkbox"/>		
2. Intact upon receipt?	<input checked="" type="checkbox"/>		
<b>FORM DC-2</b>			
3. Numbering scheme accurate?	<input checked="" type="checkbox"/>		
4. Are enclosed documents listed?	<input checked="" type="checkbox"/>		
5. Are listed documents enclosed?	<input checked="" type="checkbox"/>		
<b>FORM DC-1</b>			
6. Present?	<input checked="" type="checkbox"/>		
7. Complete?	<input checked="" type="checkbox"/>		
8. Accurate?	<input checked="" type="checkbox"/>		
<b>CHAIN-OF-CUSTODY RECORD(s)</b>			
9. Signed?	<input checked="" type="checkbox"/>		
10. Dated?	<input checked="" type="checkbox"/>		
<b>TRAFFIC REPORT(s)</b>			
<b>PACKING LIST(s)</b>			
11. Signed?	<input checked="" type="checkbox"/>		
12. Dated?	<input checked="" type="checkbox"/>		
<b>AIRBILLS/AIRBILL STICKER</b>			
13. Present?	<input checked="" type="checkbox"/>		
14. Signed?		<input checked="" type="checkbox"/>	
15. Dated?		<input checked="" type="checkbox"/>	
<b>SAMPLE TAGS</b>			
16. Does DC-1 list tags as being included?		<input checked="" type="checkbox"/>	
17. Present?			<input checked="" type="checkbox"/>
<b>ALL DOCUMENTS</b>			
18. Activities identified?	<input checked="" type="checkbox"/>		
19. Legible?	<input checked="" type="checkbox"/>		
20. Original?	<input checked="" type="checkbox"/>		
20a. If "NO," does the copy indicate where original documents are located?			<input checked="" type="checkbox"/>

EPA Lab ID: Bonner

Lab Location: MS

Region: IX Audit No.: 2103-96

Re-Submitted CSF? Yes ☐ No ☒

Box No(s): \_\_\_\_\_

COMMENTS:

#14 & 15 - AIRBILL NOT  
SIGNED AND DATED  
BY LABORATORY.

NOTE: FORMS DC-2-1 & DC-2-2  
NOT CHECKED BY  
LABORATORY.

Over for additional comments.

Received by: Bush Freitas, RSCE  
Audited by: Stan Kott  
Signature

Rich Freitas, RSCE Date 3/27/2003  
STAN KOTT / ESAT Date 4/15/03  
Printed Name/Title

TO BE COMPLETED BY CEAT		
Date Recvd by CEAT: <u>  /  /  </u>	Date Entered: <u>  /  /  </u>	Date Reviewed: <u>  /  /  </u>
Entered by: _____		
Reviewed by: _____		
Signature	Printed Name/Title	

4716

2033359



Rose Fong

11/08/04 02:19 PM

To: Matt Mitguard

cc:

cc:

Subject: Transmittal of Jalk Fee and Continental Heat Treating CLP data packages

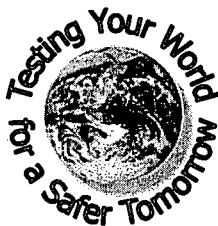
The enclosed data packages are being sent to you for archiving with your site files. The data validation was completed by ESAT and the reports were previously sent to you.

CASE	SDG
Jalk Fee	
31520	Y0SK8 & SL3 MY0SK8 & SL3
Continental Heat Treating	
31519	Y0SH9 & SJ2 MY0SH9

4716

5194

# **Bonner Analytical Testing Company**



2703 Oak Grove Road, Hattiesburg, MS 39402  
Phone: (601) 264-2854 Fax: (601) 268-7084

## **Additional Data Submission**

**Case: 31520**  
**SDG: MY0SK8**

The Following additional information concerning this SDG has been resolved. The issues brought to the Laboratory's attention are listed below.

1. Laboratory reports for cyanide MDL and CRQL Values: Attached
2. Drying time and oven temperatures for the percent solids: Attached
3. Equation used to calculate reported sample results: Included under cyanide section of the Amended SDG Narrative.
4. Form 12, Preparation Log for method DS2 (midi-distillation) for addition of magnesium chloride: Included under cyanide section of the amended SDG Narrative.
5. Logbook pages for cyanide analysis to provide reference numbers for the calibration standards and QC Standard, and certificates of traceability for relevant calibration standards: Attached

RECEIVED:  
6-16-03  
SK/ESAT

# **Bonner Analytical Testing Company**



2703 Oak Grove Road, Hattiesburg, MS 39402  
Phone: (601) 264-2854 Fax: (601) 268-7084

## **CASE NARRATIVE:**

**SDG Number: MY0SK8**

**Case Number: 31520**

**Contract Number: 68W02067**

### **Sample Receipt:**

Samples were received at BATCO on 03/20/03 by FedEx and processed by the Sample Custodian. See email pages 49 through 51, for discrepancies found during sample receiving.

The following discrepancies were found:

1. Scheduling notice listed 8 samples, 4 water & 4 soil. Lab received 5 soil samples and 4 water samples. TR/COC indicated that the case was not complete.

Resolution: Region 9 indicated that 3 extra samples (water) were required and should be received 03/21/03. This was not known in advance. The lab was advised to proceed with analysis of all samples.

2. Custody seals were present and intact but no custody seal numbers, just dates and times.

Resolution: Lab may proceed, samplers used regular custody seals provided by Region 9.

3. No Samples tags listed on TR/COC and no sample tags on containers.

Resolution: Region 9 does not use sample tags. SMO instructed Bonner to continue with analysis.



4. The TR/COC indicates the case is not complete.

Resolution: Per Region 9, the lab will wait for remaining samples before assigning SDG numbers.

Cyanide:

The distillation of the samples included the addition of approximately 2 mL of magnesium chloride solution through the top air inlet tube of the distillation head into the reaction flask in accordance to SOW ILM05.2, Exhibit D, Section 10, 10.2.4.2.7.

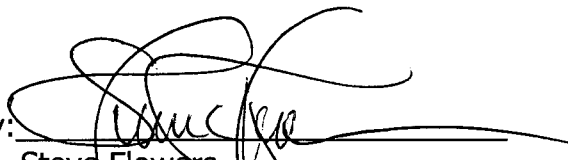
Sample Calculation for reported results:

$$\frac{[Results(\mu g / L) * Vol(L)]}{SampleWt(g)} / PercentSolids$$

CSF:

No discrepancies

Authorized by:

  
Steve Flowers  
Quality Assurance Officer

In Reference to  
Case 31520 SDG #: MY0SK8

Contract Laboratory Program  
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: APRIL 23, 2003  
Laboratory Name: Bonner Analytical Testing Co. (BONNER)  
Lab Contact: Chris Bonner  
Region: 9  
Regional Contact: Steve Remaley, CLP PO  
ESAT Reviewer: Stan Kott, ESAT/ICF-LDC  
Call Initiated By:      Laboratory X Region

In reference to data for the following samples:

SDG No.: MY0SK8

Samples: MY0SK8, MY0SK9, and MY0SL0 through MY0SL2

Summary of Questions/issues Discussed:

The following items were noted during the review of this sample delivery group (SDG). Please respond within 4 days as specified in Exhibit B, Section 2, 2.2 of the ILM05.2 Statement of Work (SOW). Send response and resubmissions to ICF Consulting, Inc./Laboratory Data Consultants, Inc., Environmental Services Assistance Team, Region 9, 1337 S. 46th Street, Building 201, Richmond, CA 94804, FAX 510 412-2304.

1. The laboratory reports cyanide MDL and CRQL values of 0.01 mg/Kg and 1.0 mg/Kg, respectively, for preparation method DS2. The data reviewer calculated MDL and CRQL values of 0.10 mg/Kg and 0.50 mg/Kg, respectively. Please review calculation described in SOW ILM05.2, Exhibit D, Section 11, 11.3.1.5.2, equation 5, and submit a corrected Form 9. In addition, since the cyanide results for all samples are less than the MDL, please calculate the adjusted CRQLs as per SOW ILM05.2, Exhibit D, Section 11, 11.4, equation 6 for samples MY0SK8, MY0SK9, and MY0SL0 through MY0SL2 and submit corrected Form 1s. Refer to SOW ILM05.2, Exhibit B, Section 2, 2.5.2.1.1 for significant figure reporting format.
- ✓ 2. The drying time and oven temperature for the percent solids analysis were not provided as per SOW ILM05.2, Exhibit D, Section 1, 1.6. Please submit a copy of the percent solids raw data that indicate weights, drying times and oven temperature for this SDG as per SOW ILM05.2, Exhibit B, Section 2, 2.5.2.3.
3. The equation used to calculate the reported sample results is not provided. Please submit a corrected SDG Narrative page to include the equation used to calculate sample results as per SOW ILM05.2, Exhibit B, Section 2, 2.5.1.2.

$$\left( \frac{\text{Result } \mu\text{g/L} \times \text{Vol (L)}}{\text{Sample Wt. (g)}} \right) \div \text{Percent Solids}$$

In Reference to  
Case 31520 SDG #: MY0SK8

Contract Laboratory Program  
REGIONAL/LABORATORY COMMUNICATION SYSTEM (continued)

4. Form 12, Preparation Log, indicates preparation method DS2 (midi-distillation of soil samples). Please submit a corrected SDG Narrative page to indicate the addition of magnesium chloride as per SOW ILM05.2, Exhibit D, Section 10, 10.2.4.2.7.
- √5. The logbook pages for cyanide analysis provide reference numbers for the calibration standards and QC standards used. However, Region 9 also requests that certificates of traceability for relevant calibration and QC standards be submitted. Information should include manufacture, lot number, laboratory reference number, and concentration.

For future reports (no response required):

1. The SDG Narrative page is labeled Case Narrative. Please correct page title to conform to SOW ILM05.2, Exhibit B, Section 2, 2.5.1.2.
2. Please sign and date airbill(s) and/or airbill sticker(s) when samples are received by the laboratory as per SOW ILM05.2, Exhibit B, Section 3, 3.5.2.1.
3. Forms DC-2-1 and DC-2-2 have a 'CHECK' section. Please check off documents included in the CSF under the 'LAB' column.

Summary of Resolution: To be determined.

\_\_\_\_\_  
Regional Contact Signature

\_\_\_\_\_  
Date of Resolution

# Bonner Analytical Testing Company

Total Solids

**COPY**

SDG No: MY0SK8

Case No.: 31520

Batch No.: T- 032103A

Date Began: 03/21/03

Time Began: 11:55

Temperature Began: 103.7

Date Finished: 03/22/03

Time Finished: 12:00

Temperature Finished: 104.2

EPA Sample ID	MY0SL0		MY0SK8	MY0SK9	MY0SL1	MY0SL2					
Laboratory ID	BT82810		BT82808	BT82809	BT82811	BT82812					
Pan ID	1	1 Dup	2	3	4	5	6	7	8	9	10
Pan Weight	0.9734	0.9707	0.9767	0.9754	0.9734	0.9702					
Pan + Sample (Initial)	5.6207	5.8433	5.6314	5.4209	5.6662	5.5301					
Sample Weight (initial)	4.6473	4.8726	4.6547	4.4455	4.6928	4.5599	0.0000	0.0000	0.0000	0.0000	0.0000
Pan + Sample (Final)	5.2337	5.4478	5.3487	5.0802	4.8327	4.7510					
Sample Weight (Final)	4.2603	4.4771	4.3720	4.1048	3.8593	3.7808	0.0000	0.0000	0.0000	0.0000	0.0000
Total Solids	91.67%	91.88%	93.93%	92.34%	82.24%	82.91%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
% RSD	0.23%										

Sample ID											
Laboratory ID											
Pan ID	11	12	13	14	15	16	17	18	19	20	
Pan Weight											
Pan + Sample (Initial)											
Sample Weight (initial)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pan + Sample (Final)											
Sample Weight (Final)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total Solids	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Analyst: MDS

Date: 3/22/2003

Supervisor: \_\_\_\_\_

Date: \_\_\_\_\_

USEPA - CLP  
1A-IN  
INORGANIC ANALYSIS DATA SHEET

COPY

EPA SAMPLE NO.

MY0SK8

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8  
Matrix (soil/water): SOIL Lab Sample ID: BT82808  
Level (low/med): LOW Date Received: 3/20/2003  
% Solids: 93.9  
Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	1.1	U		AS

Color Before: Brown Clarity Before: \_\_\_\_\_ Texture: Fine  
Color After: White Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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USEPA - CLP  
1A-IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MY0SK9

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8  
Matrix (soil/water): SOIL Lab Sample ID: BT82809  
Level (low/med): LOW Date Received: 3/20/2003  
% Solids: 92.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	1.1	U		AS

Color Before: Brown Clarity Before: \_\_\_\_\_ Texture: Fine  
Color After: Yellow Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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USEPA - CLP  
1A-IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MY0SL0

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8  
Matrix (soil/water): SOIL Lab Sample ID: BT82810  
Level (low/med): LOW Date Received: 3/20/2003  
% Solids: 91.7  
Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	1.1	U		AS

Color Before: Brown Clarity Before: \_\_\_\_\_ Texture: Fine  
Color After: Yellow Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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USEPA - CLP  
1A-IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MY0SL1

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8  
Matrix (soil/water): SOIL Lab Sample ID: BT82811  
Level (low/med): LOW Date Received: 3/20/2003  
% Solids: 82.2  
Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	1.2	U		AS

Color Before: Brown Clarity Before: \_\_\_\_\_ Texture: Fine  
Color After: Yellow Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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USEPA - CLP  
1A-IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MY0SL2

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8  
Matrix (soil/water): SOIL Lab Sample ID: BT82812  
Level (low/med): LOW Date Received: 3/20/2003  
% Solids: 82.9  
Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	1.2	U		AS

Color Before: Brown Clarity Before: \_\_\_\_\_ Texture: Fine  
Color After: Yellow Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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## USEPA - CLP

9-IN

## METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Bonner Analytical Testing Contract: 68W02067

Lab Code: BONNER Case No.: 31520 NRAS No.:            SDG NO.: MY0SK8

Instrument Type: AS Instrument ID: Astoria01 Date: 11/22/2002

Preparation Method: NPl

Concentration Units (ug/L or mg/kg): UG/L

Analyte	Wave-Length /Mass	CRQL	MDL
Cyanide	578.00	10	2.00

## USEPA - CLP

9-IN

## METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Bonner Analytical TestingContract: 68W02067Lab Code: BONNER Case No.: 31520

NRAS No.: \_\_\_\_\_

SDG NO.: MY0SK8Instrument Type: ASInstrument ID: Astoria01Date: 11/22/2002Preparation Method: DS2Concentration Units (ug/L or mg/kg): UG/L

Analyte	Wave-Length /Mass	CRQL	MDL
Cyanide	578.00	10	2.00

## METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Bonner Analytical TestingContract: 68W02067Lab Code: BONNERCase No.: 31520NRAS No.: SDG NO.: MY0SK8Instrument Type: ASInstrument ID: Astoria01Date: 11/22/2002Preparation Method: DS2Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Wave-Length /Mass	CRQL	MDL
Cyanide	578.00	1	0.10

*Received 12-2-0*

**QATS INORGANIC REFERENCE MATERIAL  
INITIAL CALIBRATION VERIFICATION SOLUTIONS  
(ICVs)**

October 17, 2002

**Note:** These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the contract, follow the contract.

**CAUTION:** Read Instructions Carefully Before Opening Bottles.

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May Contain Metals or Cyanide  
in Dilute Acidic or Basic Aqueous  
Solutions

Material Safety Data Sheets  
Available Upon Request

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**(A) SAMPLE DESCRIPTION**

Enclosed is a reference material in a matrix of dilute acidic or basic aqueous solution, containing various analyte concentrations.

**(B) BREAKAGE OR MISSING ITEMS**

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to enclosed chain-of-custody sheets. Report any problems to Mr. Dave Brooks (702) 895-8702. Return chain-of-custody sheet with appropriate annotations and signatures to Mr. Brooks at the address provided below.

**Quality Assurance Technical Support Laboratory  
2700 Chandler Ave - Bldg C  
Las Vegas, NV 89120**

## INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICVs)

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP and AA instruments. These solutions may also be used as aqueous Laboratory Control Solutions.

The values for each element in the ICVs are listed below in  $\mu\text{g/L}$  (ppb) for the solutions that result after the concentrates have been diluted according to the following instructions:

1. ICV-1 (1201) — For ICP-AES use, dilute the ICV-1 concentrate 10-fold with 2% (v/v) nitric acid; pipet 10 mL of the concentrate into a 100-mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. For ICP-MS use, dilute the ICV-1 concentrate 50-fold with 1% (v/v) nitric acid; pipet 2 mL of the concentrate into a 100-mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.
2. ICV-2 (0601) -- For furnace AA use, dilute the ICV-2 concentrate 20-fold with 2% (v/v) nitric acid; pipet 5 mL of the concentrate into a 100-mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.
3. ICV-3 (0500) -- For ICP use, dilute the ICV-3 concentrate 10-fold with 2% (v/v) nitric acid; pipet 10 mL of the concentrate into a 100-mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. For furnace AA use, dilute the ICV-3 concentrate 100-fold with 2% (v/v) nitric acid; pipet 1 mL of the concentrate into a 100-mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.
4. ICV-4 (0499) -- For the furnace AA determination of lead and thallium, dilute the ICV-4 concentrate 10-fold with 2% (v/v) nitric acid; pipet 10 mL of the concentrate into a 100-mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. For the furnace AA determination of silver and cadmium, dilute the ICV-4 concentrate 100-fold with 2% (v/v) nitric acid; pipet 1 mL of the concentrate into a 100-mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.
5. ICV-5 (0700) -- For the cold vapor analysis of mercury by AA, dilute the ICV-5 concentrate 100-fold with 2% (v/v) nitric acid; pipet 1 mL of the concentrate into a 100-mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV-5 concentrate is prepared in 0.05% (w/v)  $\text{K}_2\text{Cr}_2\text{O}_7$  and 5% (v/v) nitric acid. The concentrate must be stored in the dark.
6. ICV-6 (0400) -- For the analysis of cyanide, dilute the ICV-6 concentrate 100-fold with Type II water; pipet 1 mL of the concentrate into a 100-mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from  $\text{K}_3\text{Fe}(\text{CN})_6$ , Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light. The concentrate must be stored in the dark.

NOTE: USE TYPE II WATER AND HIGH PURITY ACIDS FOR ALL DILUTIONS

ICV-5 (0700)	
Element	Concentration (µg/L) (after 100-fold dilution)
Hg	4.1

ICV-6 (0400)	
Element	Concentration (µg/L) (after 100-fold dilution)
CN	99



## DataPack™

### Certification

*Received 1-10-03 MCM*

## Free Cyanide

Lot No. 03122

Catalog No. 997 - 500 ml

Catalog No. 048 - 125 ml

<u>Parameter</u>	<u>Certified Value (mg/L)</u>
Free Cyanide	1000

**Expiration Date:** December 2004.

**Preservative:** This standard is preserved with 0.5% (v/v) NaOH.

**Production Notes:** This standard is made from Potassium Cyanide (KCN).

**Standard Preparation Instructions:** None required. This standard is ready to dilute and analyze as received.

**Storage:** Store at 20-25°C.

### Traceability Data Summary

No NIST Traceability data is available. A NIST certified Cyanide standard is not currently available. The standard is traceable to NIST weights used for the calibration and checks of all balances during the manufacture of this standard.



Received 12-2-03

INORGANIC REFERENCE MATERIAL  
SOLID LABORATORY CONTROL SAMPLE - CYANIDE  
LCS CN (0899)

**Note:** These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the contract, follow the contract.

**CAUTION:** Read Instructions Carefully Before Opening Bottles.

Contains Cyanide

Material Safety Data Sheets  
Available Upon Request

**(A) SAMPLE DESCRIPTION**

Enclosed is a solid reference material composed of sand which contains Iron (III) Cyanide.

**(B) BREAKAGE OR MISSING ITEMS**

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to enclosed chain-of-custody sheets. Report any problems to Mr. Art Clarke, Materials Document Control Officer, IT Corporation (702) 895-8714. Return chain-of-custody sheet with appropriate annotations and signatures to Mr. Clarke at the address provided below.

IT Corporation  
2700 Chandler Ave - Bldg C  
Las Vegas, NV 89120

**INORGANIC REFERENCE MATERIAL  
SOLID LABORATORY CONTROL SAMPLE-CYANIDE  
LCS CN (0899)**

This solid laboratory control sample was prepared by the Quality Assurance Technical Support Laboratory (QATS) operated by IT Corporation under contract to the EPA. This material requires acid distillation to release cyanide. Use a five gram aliquot for macro-distillation or a one gram aliquot for midi-distillation. The "true value" concentration and control limits were derived from the results of an EPA multi-laboratory analysis of the solid material by Contract Laboratory Program procedures. The "True Value" concentration and control limits are listed in the table below.

"TRUE VALUE" CONCENTRATIONS AND CONTROL LIMITS FOR THE ELEMENTS IN THE  
SOLID LABORATORY CONTROL SAMPLE CYANIDE, LCS CN (0899)

Analyte	True Value (mg/kg)	Control Limits (mg/kg)
CN	9.6	7.4 to 11.8

FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME <u>Bonner Analytical Testing Company</u>	
CITY/STATE <u>Hattiesburg, MS</u>	
CASE NO. <u>31520</u>	SDG NO. <u>MYOSK8</u>
SDG NOS. TO FOLLOW <u>MYOSL3</u> <u>N/A</u> <u>N/A</u>	
NRAS NO. <u>N/A</u>	
CONTRACT NO. <u>68W02067</u>	
SOW NO. <u>ILM05.2</u>	

All documents delivered in the Complete SDG File must be original documents where possible. (Reference - Exhibit B Section 2.6)

	PAGE NOS.		CHECK	
	FROM	TO	LAB	REGION
1. Inventory Sheet (DC-2) (Do not number)	—	—	—	✓
2. Sample Log-In Sheet (DC-1)	<u>1</u>	<u>1</u>	—	✓
3. Traffic Report/Chain of Custody Record	<u>2</u>	<u>2</u>	—	✓
4. Cover Page	<u>3</u>	<u>3</u>	—	✓
5. SDG Narrative	<u>4</u>	<u>5</u>	—	✓
<b>Inorganic Analysis</b>				
6. Data Sheet (Form I-IN)	<u>6</u>	<u>10</u>	—	✓
7. Initial & Continuing Calibration Verification (Form IIA-IN)	<u>11</u>	<u>11</u>	—	✓
8. CRQL Standard (Form IIB-IN)	<u>12</u>	<u>12</u>	—	✓
9. Blanks (Form III-IN)	<u>13</u>	<u>13</u>	—	✓
10. ICP-AES Interference Check Sample (Form IVA-IN)	<u>N/A</u>	<u>N/A</u>	—	<u>N/A</u>
11. ICP-MS Interference Check Sample (Form IVB-IN)	<u>N/A</u>	<u>N/A</u>	—	<u>N/A</u>
12. Matrix Spike Sample Recovery (Form VA-IN)	<u>14</u>	<u>14</u>	—	✓
13. Post-Digestion Spike Sample Recovery (Form VB-IN)	<u>N/A</u>	<u>N/A</u>	—	<u>N/A</u>
14. Duplicates (Form VI-IN)	<u>15</u>	<u>15</u>	—	✓ <u>N/A SK</u>
15. Laboratory Control Sample (Form VII-IN)	<u>16</u>	<u>16</u>	—	✓ <u>N/A SK</u>
16. ICP-AES and ICP-MS Serial Dilutions (Form VIII-IN)	<u>N/A</u>	<u>N/A</u>	—	<u>N/A</u>
17. Method Detection Limits (Annually) (Form IX-IN)	<u>17</u>	<u>19</u>	—	✓
18. ICP-AES Interelement Correction Factors (Quarterly) (Form XA-IN)	<u>N/A</u>	<u>N/A</u>	—	<u>N/A</u>
19. ICP-AES Interelement Correction Factors (Quarterly) (Form XB-IN)	<u>N/A</u>	<u>N/A</u>	—	<u>N/A</u>
20. ICP-AES and ICP-MS Linear Ranges (Quarterly) (Form XI-IN)	<u>N/A</u>	<u>N/A</u>	—	<u>N/A</u>
21. Preparation Log (Form XII-IN)	<u>20</u>	<u>20</u>	—	✓
22. Analysis Run Log (Form XIII-IN)	<u>21</u>	<u>21</u>	—	✓

	FROM	TO	LAB	REGION
23. ICP-MS Tune (Form XIV-IN)	<u>N/A</u>	<u>N/A</u>	_____	<u>N/A</u>
24. ICP-MS Internal Standards Relative Intensity Summary (Form XV-IN)	<u>N/A</u>	<u>N/A</u>	_____	<u>N/A</u>
25. ICP-AES Raw Data	<u>N/A</u>	<u>N/A</u>	_____	<u>N/A</u>
26. GFAA Raw Data (If Applicable)	<u>N/A</u>	<u>N/A</u>	_____	<u>N/A</u>
27. ICP-MS Raw Data	<u>N/A</u>	<u>N/A</u>	_____	<u>N/A</u>
28. Mercury Raw Data	<u>N/A</u>	<u>N/A</u>	_____	<u>N/A</u>
29. Cyanide Raw Data	<u>22</u>	<u>25</u>	_____	<u>✓</u>
30. Preparation Logs Raw Data	<u>26</u>	<u>27</u>	_____	<u>✓</u>
31. Percent Solids Determination Log	<u>28</u>	<u>28</u>	_____	<u>✓</u>
32. USEPA Shipping/Receiving Documents Airbill (No. of Shipments <u>1</u> )	<u>29</u>	<u>30</u>	_____	<u>✓</u>
Sample Tags			_____	<u>N/A</u>
Sample Log-In Sheet (Lab)	<u>31</u>	<u>32</u>	_____	<u>✓</u>
33. Misc. Shipping/Receiving Records (list all individual records)				
Telephone Logs	<u>N/A</u>	<u>N/A</u>	_____	<u>N/A</u>
<u>Scheduling &amp; shipping notices</u>	<u>33</u>	<u>34</u>	_____	<u>✓</u>
<u>SDG cover sheet &amp; misc Fed Ex airbills</u>	<u>35</u>	<u>37</u>	_____	<u>✓</u>
34. Internal Lab Sample Transfer Records & Tracking Sheets (describe or list)				
<u>In-house CDC</u>	<u>38</u>	<u>38</u>	_____	<u>✓</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	_____	<u>✓</u>
35. Internal Original Sample Prep & Analysis Records (describe or list)				
Prep Records <u>standard + reagent logs</u>	<u>39</u>	<u>47</u>	_____	<u>✓</u>
Analysis Records <u>run log raw data</u>	<u>48</u>	<u>48</u>	_____	<u>✓</u>
Description <u>N/A</u>	<u>N/A</u>	<u>N/A</u>	_____	<u>N/A</u>
36. Other Records (describe or list)				
Telephone Communications Log	<u>N/A</u>	<u>N/A</u>	_____	<u>N/A</u>
<u>e-mails</u>	<u>49</u>	<u>51</u>	_____	<u>✓</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	_____	<u>✓</u>

37. Comments: \_\_\_\_\_

Completed by: \_\_\_\_\_

(CLP Lab)

(Signature)

Chris Bonner LAB MANAGER

(Print Name &amp; Title)

3/26/03

(Date)

Audited by: \_\_\_\_\_

(USEPA)

(Signature)

STAN KOTT / ESAT

(Print Name &amp; Title)

4-15-03

(Date)

Lab Name <u>Bonner Analytical Testing Company</u>				Page <u>1</u> of <u>1</u>		
Received By (Print Name) <u>Laurie Rinko</u>				Log-in Date <u>3-20-03</u>		
Received By (Signature) <u>Laurie Rinko</u>						
Case Number <u>31520</u>		Sample Delivery Group No. <u>MYOSK8</u>		NRAS Number		
Remarks:		Corresponding				
		EPA Sample #	Aqueous Sample pH	Sample Tag #	Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1. Custody Seal(s) <u>Present/Absent*</u> <u>Intact/Broken</u>		<u>MYOSK8</u>	<u>N/A</u>	<u>N/A</u>	<u>BT82808</u>	<u>good</u>
2. Custody Seal Nos. <u>N/A</u> <u>N/A</u>		<u>MYOSK9</u>	<u> </u>	<u> </u>	<u>BT82809</u>	<u> </u>
3. Traffic Reports/Chain of Custody Records or Packing Lists <u>Present/Absent*</u>		<u>MYOSL0</u>	<u> </u>	<u> </u>	<u>BT82810</u>	<u> </u>
4. Airbill <u>Airbill/Sticker</u> <u>Present/Absent*</u>		<u>MYOSL1</u>	<u> </u>	<u> </u>	<u>BT82811</u>	<u> </u>
5. Airbill No. <u>835859426468</u> <u>N/A</u>		<u>MYOSL2</u> <u>MYOL12</u> <u>3-20-03</u>	<u>↓</u>	<u>↓</u>	<u>BT82812</u>	<u>↓</u>
6. Sample Tags <u>Present/Absent*</u> Sample Tag Numbers <u>Listed/Not Listed on Traffic Report/Chain of Custody Record</u>						
7. Sample Condition <u>Intact/Broken*/Leaking</u>						
8. Cooler Temperature Indicator Bottle <u>Present/Absent*</u>						
9. Cooler Temperature <u>2.5°C</u>						
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree? <u>Yes/No*</u>						
11. Date Received at Lab <u>3-20-03</u>						
12. Time Received <u>0900</u>						
Sample Transfer						
Fraction	Fraction					
Area #	Area #					
By	By					
On	On					

\* Contact SMO and attach record of resolution

Reviewed By		Logbook No.
Date		Logbook Page No.



USEPA Contract Laboratory Program  
Inorganic Traffic Report & Chain of Custody Record

Case No: 31520

DAS No:

SDG No: MYOSK8

L

<b>Date Shipped:</b> 3/19/2003 <b>Carrier Name:</b> FedEx <b>Airbill:</b> 835859426468 <b>Shipped to:</b> Bonner Analytical Testing Co. 2703 Oak Grove Road Hattiesburg MS 39402 (601) 264-2854	<b>Chain of Custody Record</b>		<b>Sampler Signature:</b> <i>ShKOK</i>	<b>For Lab Use Only</b> <b>Lab Contract No:</b> 68W02067 <b>Unit Price:</b> \$72.00 <b>Transfer To:</b> _____ <b>Lab Contract No:</b> _____ <b>Unit Price:</b> _____	
	<b>Relinquished By</b>	<b>(Date / Time)</b>	<b>Received By</b>		<b>(Date / Time)</b>
	1 <i>ShKOK</i>	3-19-03 1600	Federal Express		3-19-03 1600
	2		Yamir Runko		3-20-03 0900
	3				
4					

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
MYOSK8	Soil (>12")/ Anitra Rice	L/G	CN (21)	(Ice Only) (1)	JF-1-S5	S: 3/18/2003	15:50	YOSK8	good ↓
MYOSK9	Soil (>12")/ Anitra Rice	L/G	CN (21)	(Ice Only) (1)	JF-1-S15	S: 3/18/2003	16:12	YOSK9	
MYOSL0	Soil (>12")/ Anitra Rice	M/G	CN (21)	(Ice Only) (2)	JF-7-S20	S: 3/18/2003	10:30	YOSL0	
MYOSL1	Soil (>12")/ Anitra Rice	M/G	CN (21)	(Ice Only) (1)	JF-7-S30	S: 3/18/2003	10:55	YOSL1	
MYOSL2	Soil (>12")/ Anitra Rice	M/G	CN (21)	(Ice Only) (1)	JF-7-S35	S: 3/18/2003	11:00	YOSL2	
MYOSL3	Ground Water/ Anitra Rice	L/G	CN (21)	(NaOH) (1)	JF-GW-1	S: 3/18/2003	13:00	YOSL3	
MYOSL4	Ground Water/ Anitra Rice	L/G	CN (21)	(NaOH) (1)	JF-GW-2	S: 3/18/2003	17:01	YOSL4	
MYOSL6	Ground Water/ Anitra Rice	L/G	CN (21)	(NaOH) (1)	JF-GW-4	S: 3/18/2003	16:31	YOSL6	
MYOSL7	Ground Water/ Anitra Rice	L/G	CN (21)	(NaOH) (1)	JF-GW-5	S: 3/18/2003	17:17	YOSL7	✓

<b>Shipment for Case Complete?</b> N	<b>Sample(s) to be used for laboratory QC:</b> MYOSL0	<b>Additional Sampler Signature(s):</b> <i>Anitra Rice</i>	<b>Cooler Temperature Upon Receipt:</b> 2.5°C	<b>Chain of Custody Seal Number:</b> N/A
<b>Analysis Key:</b> CN = Cyanide	<b>Concentration:</b> L = Low, M = Low/Medium, H = High	<b>Type/Designate:</b> Composite = C, Grab = G	<b>Custody Seal Intact?</b> Y	<b>Shipment Iced?</b> Y

TR Number: 9-233994445-031903-0003

Provides preliminary results. Requests for preliminary results will increase analytical costs.  
Copy to: Sample Management Office, 2000 Edmund Halley Dr., Reston, VA. 20191-3400 Phone 703/264-9348 Fax 703/264-9222

LABORATORY COPY

## COVER PAGE

Lab Name: Bonner Analytical Testing Company Contract: 68W02067Lab Code: BONNER Case No: 31520 NRAS No.: \_\_\_\_\_ SDG No: MY0SK8SOW No.: ILM05.2

## EPA Sample No.

## Lab Sample ID

MY0SK8BT82808MY0SK9BT82809MY0SL0BT82810MY0SL0DBT82810DMY0SL0SBT82810SMY0SL1BT82811MY0SL2BT82812

ICP-AES ICP-MS

Were ICP-AES and ICP-MS interelement corrections applied? (Yes/No) YES YESWere ICP-AES and ICP-MS background corrections applied? (Yes/No) YES YESIf yes, were raw data generated before application of background corrections? (Yes/No) NO NOComments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette (or via an alternate means of electronic transmission, if approved in advance by USEPA) has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name: Chris BonnerDate: 3/26/03Title: Inorganic Laboratory Manager



2703 Oak Grove Road, Hattiesburg, MS 39402  
Phone: (601) 264-2854 Fax: (601) 268-7084

## **CASE NARRATIVE:**

**SDG Number: MY0SK8**

**Case Number: 31520**

**Contract Number: 68W02067**

### **Sample Receipt:**

Samples were received at BATCO on 03/20/03 by FedEx and processed by the Sample Custodian. See email pages 49 through 51, for discrepancies found during sample receiving.

The following discrepancies were found:

1. Scheduling notice listed 8 samples, 4 water & 4 soil. Lab received 5 soil samples and 4 water samples. TR/COC indicated that the case was not complete.

Resolution: Region 9 indicated that 3 extra samples (water) were required and should be received 03/21/03. This was not known in advance. The lab was advised to proceed with analysis of all samples.

2. Custody seals were present and intact but no custody seal numbers, just dates and times.

Resolution: Lab may proceed, samplers used regular custody seals provided by Region 9.

3. No Samples tags listed on TR/COC and no sample tags on containers.

Resolution: Region 9 does not use sample tags. SMO instructed Bonner to continue with analysis.



4. The TR/COC indicates the case is not complete.

Resolution: Per Region 9, the lab will wait for remaining samples before assigning SDG numbers.

Cyanide:

No discrepancies

CSF:

No discrepancies

Authorized by: \_\_\_\_\_



Chris M. Bonner  
Laboratory Manager

## USEPA - CLP

1A-IN

006

## INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MY0SK8

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8  
Matrix (soil/water): SOIL Lab Sample ID: BT82808  
Level (low/med): LOW Date Received: 3/20/2003  
% Solids: 93.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	0.04	J		AS

Color Before: Brown Clarity Before: \_\_\_\_\_ Texture: Fine  
Color After: White Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

USEPA - CLP  
1A-IN  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MY0SK8

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8  
Matrix (soil/water): SOIL Lab Sample ID: BT82808  
Level (low/med): LOW Date Received: 3/20/2003  
% Solids: 93.9  
Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	1.1	U		AS

Color Before: Brown Clarity Before: \_\_\_\_\_ Texture: Fine  
Color After: White Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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USEPA - CLP  
1A-IN  
INORGANIC ANALYSIS DATA SHEET

007

EPA SAMPLE NO.

MY0SK9

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8  
Matrix (soil/water): SOIL Lab Sample ID: BT82809  
Level (low/med): LOW Date Received: 3/20/2003  
% Solids: 92.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	1.1	U		AS

Color Before: Brown Clarity Before: \_\_\_\_\_ Texture: Fine  
Color After: Yellow Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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USEPA - CLP  
1A-IN  
INORGANIC ANALYSIS DATA SHEET

008

EPA SAMPLE NO.

MY0SL0

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8  
Matrix (soil/water): SOIL Lab Sample ID: BT82810  
Level (low/med): LOW Date Received: 3/20/2003  
% Solids: 91.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	1.1	U		AS

Color Before: Brown Clarity Before: \_\_\_\_\_ Texture: Fine  
Color After: Yellow Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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USEPA - CLP  
1A-IN  
INORGANIC ANALYSIS DATA SHEET

009

EPA SAMPLE NO.

MY0SL1

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8  
Matrix (soil/water): SOIL Lab Sample ID: BT82811  
Level (low/med): LOW Date Received: 3/20/2003  
% Solids: 82.2  
Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	1.2	U		AS

Color Before: Brown Clarity Before: \_\_\_\_\_ Texture: Fine  
Color After: Yellow Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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## USEPA - CLP

1A-IN

010

## INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MY0SL2

Lab Name: Bonner Analytical TestingContract: 68W02067Lab Code: BONNER Case No.: 31520

NRAS No.: \_\_\_\_\_

SDG NO.: MY0SK8Matrix (soil/water): SOILLab Sample ID: BT82812Level (low/med): LOWDate Received: 3/20/2003% Solids: 82.9Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
57-12-5	Cyanide	1.2	U		AS

Color Before: Brown

Clarity Before: \_\_\_\_\_

Texture: FineColor After: Yellow

Clarity After: \_\_\_\_\_

Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 2A-IN

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Bonner Analytical Testing Company Contract: 68W02067Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8Initial Calibration Verification Source: EPAContinuing Calibration Verification Source: ERA

Concentration Units: ug/L

Analyte	Initial Calibration Verification			Continuing Calibration Verification					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Cyanide	99.0	104.77	106	250.0	252.15	101	255.20	102	AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115



USEPA - CLP  
2B-IN  
CRQL CHECK STANDARD

012

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.:                      SDG No.: MY0SK8

CRQL Check Standard Source:                                     

Concentration Units: ug/L

Analyte	CRQL Check Standard				
	Initial			Final	
	True	Found*	%R (1)	Found*	%R (1)
Cyanide	10.0	9.70 J	97	10.56	106

(1) Control Limits: 70-130 with the following exceptions:  
ICP-AES - Antimony, Lead, and Thallium: 50-150  
ICP-MS - Cobalt, Manganese, and Zinc: 50-150

\* if applicable, enter the concentration qualifier "J" or "U" after the concentration in these columns (e.g., 0.20U for Mercury)

## 3-IN

## BLANKS

Lab Name: Bonner Analytical Testing Comp Contract: 68W02067Lab Code: BONNER Case No.: 31520 NRAS No.:            SDG NO.: MY0SK8Preparation Blank Matrix (soil/water): SOILPreparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	
Cyanide	10.0	U	10.0	U	10.0	U			-0.028	J	AS

## MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MYOSLOS

Lab Name: Bonner Analytical TestingContract: 68W02067Lab Code: BONNERCase No.: 31520

NRAS No.: \_\_\_\_\_

SDG NO.: MYOSK8Matrix (soil/water): SOILLevel (low/med): LOW% Solids for Sample: 91.7Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Cyanide	75 - 125	6.0215		1.0101	U	5.51	109		AS

Comments:

## USEPA - CLP

6-IN

## DUPLICATES

EPA SAMPLE NO.

MY0SL0D

Lab Name: Bonner Analytical TestingContract: 68W02067Lab Code: BONNER Case No.: 31520NRAS No.: \_\_\_\_\_ SDG NO. MY0SK8Matrix (soil/water): SOILLevel (low/med): LOW% Solids for Sample: 91.7% Solids for Duplicate: 91.9Concentration Units: (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	M
Cyanide		1.0000 U	1.0000 U			AS

## 016

**LABORATORY CONTROL SAMPLE**

Aqueous LCS Source:

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits	%R	
Cyanide				9.6	9.4		7.4	11.8	98

## 9-IN

## METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Bonner Analytical Testing Contract: 68W02067

Lab Code: BONNER Case No.: 31520 NRAS No.:            SDG NO.: MY0SK8

Instrument Type: AS Instrument ID: Astoria01 Date: 11/22/2002

Preparation Method: NP1

Concentration Units (ug/L or mg/kg): UG/L

Analyte	Wave-Length /Mass	CRQL	MDL
Cyanide	578.00	10	2.00

## METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Bonner Analytical Testing Contract: 68W02067

Lab Code: BONNER Case No.: 31520 NRAS No.:            SDG NO.: MY0SK8

Instrument Type: AS Instrument ID: Astoria01 Date: 11/22/2002

Preparation Method: DS2

Concentration Units (ug/L or mg/kg): UG/L

Analyte	Wave-Length /Mass	CRQL	MDL
Cyanide	578.00	10	2.00

## 9-IN

## METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Bonner Analytical TestingContract: 68W02067Lab Code: BONNERCase No.: 31520NRAS No.:           SDG NO.: MY0SK8Instrument Type: ASInstrument ID: Astoria01Date: 11/22/2002Preparation Method: DS2Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Wave-Length /Mass	CRQL	MDL
Cyanide	578.00	1	0.01



## USEPA - CLP

9-IN

## METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Bonner Analytical TestingContract: 68W02067Lab Code: BONNER Case No.: 31520NRAS No.:           SDG NO.: MY0SK8Instrument Type: ASInstrument ID: Astoria01Date: 11/22/2002Preparation Method: DS2Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Wave-Length /Mass	CRQL	MDL
Cyanide	578.00	1	0.10

USEPA - CLP  
12-IN  
PREPARATION LOG

020

Lab Name: Bonner Analytical Testing Contract: 68W02067  
Lab Code: BONNER Case No.: 31520 NRAS No.: \_\_\_\_\_ SDG NO.: MY0SK8  
Preparation Method: DS2

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
ICV01	3/21/2003		50
MIDRANGE250	3/21/2003		50
PBS01	3/21/2003	1.01	50
LCSS01	3/21/2003	0.99	50
MY0SK8	3/21/2003	1.01	50
MY0SK9	3/21/2003	0.99	50
MY0SL0	3/21/2003	1.01	50
MY0SL0D	3/21/2003	1.00	50
MY0SL0S	3/21/2003	0.99	50
MY0SL1	3/21/2003	1.01	50
MY0SL2	3/21/2003	1.00	50

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

13-IN


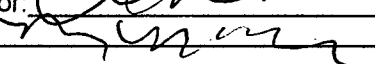
## ANALYSIS RUN LOG

Lab Name: Bonner Analytical Testing CompanyContract: 68W02067Lab Code: BONNERCase No.: 31520NRAS No.: SDG No.: MY0SK8Instrument ID: Astoria01Analysis Method: ASStart Date: 3/21/2003End Date: 3/21/2003

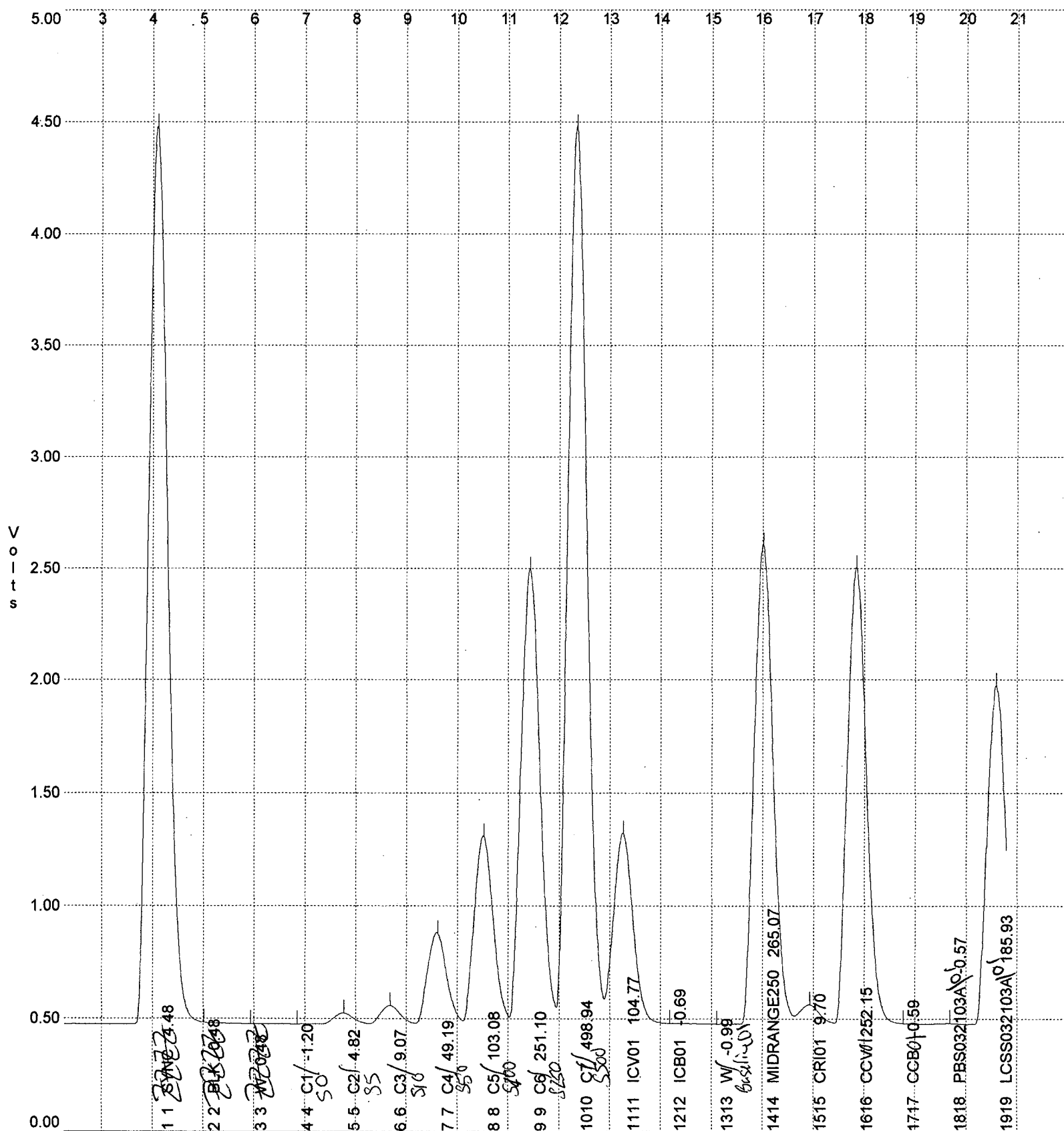
EPA Sample NO.	D/F	Time	Analytes																							
			A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S E	A G	N A	T L	V	Z N	C N
S0	1.00	1304																								X
S5	1.00	1305																								X
S10	1.00	1306																								X
S50	1.00	1307																								X
S100	1.00	1308																								X
S250	1.00	1308																								X
S500	1.00	1309																								X
ICV01	1.00	1310																								X
ICB01	1.00	1311																								X
BASELINE01	1.00	1312																								X
MIDRANGE250	1.00	1313																								X
CRI01	1.00	1314																								X
CCV01	1.00	1315																								X
CCB01	1.00	1316																								X
PBS01	1.00	1317																								X
LCSS01	1.00	1318																								X
MY0SK8	1.00	1319																								X
MY0SK9	1.00	1319																								X
MY0SL0	1.00	1320																								X
MY0SL0D	1.00	1321																								X
MY0SL0S	1.00	1322																								X
MY0SL1	1.00	1323																								X
MY0SL2	1.00	1324																								X
CRI02	1.00	1325																								X
CCV02	1.00	1326																								X
CCB02	1.00	1327																								X

Report for C032103A.ACF [S1]								
Date: 3/21/2003								
Base Configuration: clph20								
Sam#	Cup#	Identifier	Date	Time	Test Name	Volts	UG/L	Status
1	1	SYN02	3/21/2003	1:01:37 PM	CN	4.4786	4.48	
2	2	BLR22	3/21/2003	1:02:32 PM	CN	0.4849	0.48	NP
3	3	W222	3/21/2003	1:03:27 PM	CN	0.4778	0.48	NP
4	4	C1 / S0	3/21/2003	1:04:22 PM	CN	0.4766	-1.20	NP
5	5	C2 / S5	3/21/2003	1:05:17 PM	CN	0.5248	4.82	NP
6	6	C3 / S10	3/21/2003	1:06:11 PM	CN	0.5589	9.07	NP
7	7	C4 / S50	3/21/2003	1:07:07 PM	CN	0.8801	49.19	
8	8	C5 / S100	3/21/2003	1:08:01 PM	CN	1.3114	103.08	
9	9	C6 / S250	3/21/2003	1:08:56 PM	CN	2.4965	251.10	
10	10	C7 / S500	3/21/2003	1:09:51 PM	CN	4.4806	498.94	
		Curve Type					1st Order	
		Correlation					0.99996	
		Intercept					0.49	
		Slope					0.01	
11	11	ICV01	3/21/2003	1:10:46 PM	CN	1.3250	104.77	
12	12	ICB01	3/21/2003	1:11:41 PM	CN	0.4807	-0.69	NP
13	13	W/Baseline 01	3/21/2003	1:12:36 PM	CN	0.4783	-0.99	NP
14	14	MIDRANGE250	3/21/2003	1:13:31 PM	CN	2.6083	265.07	
15	15	CRI01	3/21/2003	1:14:26 PM	CN	0.5639	9.70	NP
16	16	CCV01	3/21/2003	1:15:21 PM	CN	2.5048	252.15	
17	17	CCB01	3/21/2003	1:16:16 PM	CN	0.4815	-0.59	NP
18	18	PBS032103A/b1	3/21/2003	1:17:11 PM	CN	0.4817	-0.57	NP
19	19	LCSS032103A/b1	3/21/2003	1:18:06 PM	CN	1.9747	185.93	
20	20	MY0SK8	3/21/2003	1:19:01 PM	CN	0.4917	0.69	NP
21	21	MY0SK9	3/21/2003	1:19:55 PM	CN	0.4821	-0.51	NP
22	22	MY0SL0	3/21/2003	1:20:51 PM	CN	0.4806	-0.71	NP
23	23	MY0SL0D	3/21/2003	1:21:45 PM	CN	0.4813	-0.61	NP
24	24	MY0SL0S	3/21/2003	1:22:40 PM	CN	1.3615	109.33	
25	25	MY0SL1	3/21/2003	1:23:35 PM	CN	0.4842	-0.25	NP
26	26	MY0SL2	3/21/2003	1:24:30 PM	CN	0.4821	-0.51	NP
27	27	CRI02	3/21/2003	1:25:25 PM	CN	0.5708	10.56	NP
28	28	CCV02	3/21/2003	1:26:20 PM	CN	2.5293	255.20	
29	29	CCB02	3/21/2003	1:27:15 PM	CN	0.4867	0.06	NP
30	30	W/Baseline 02	3/21/2003	1:28:10 PM	CN	0.4853	-0.11	NP

REVIEWED  
By: 

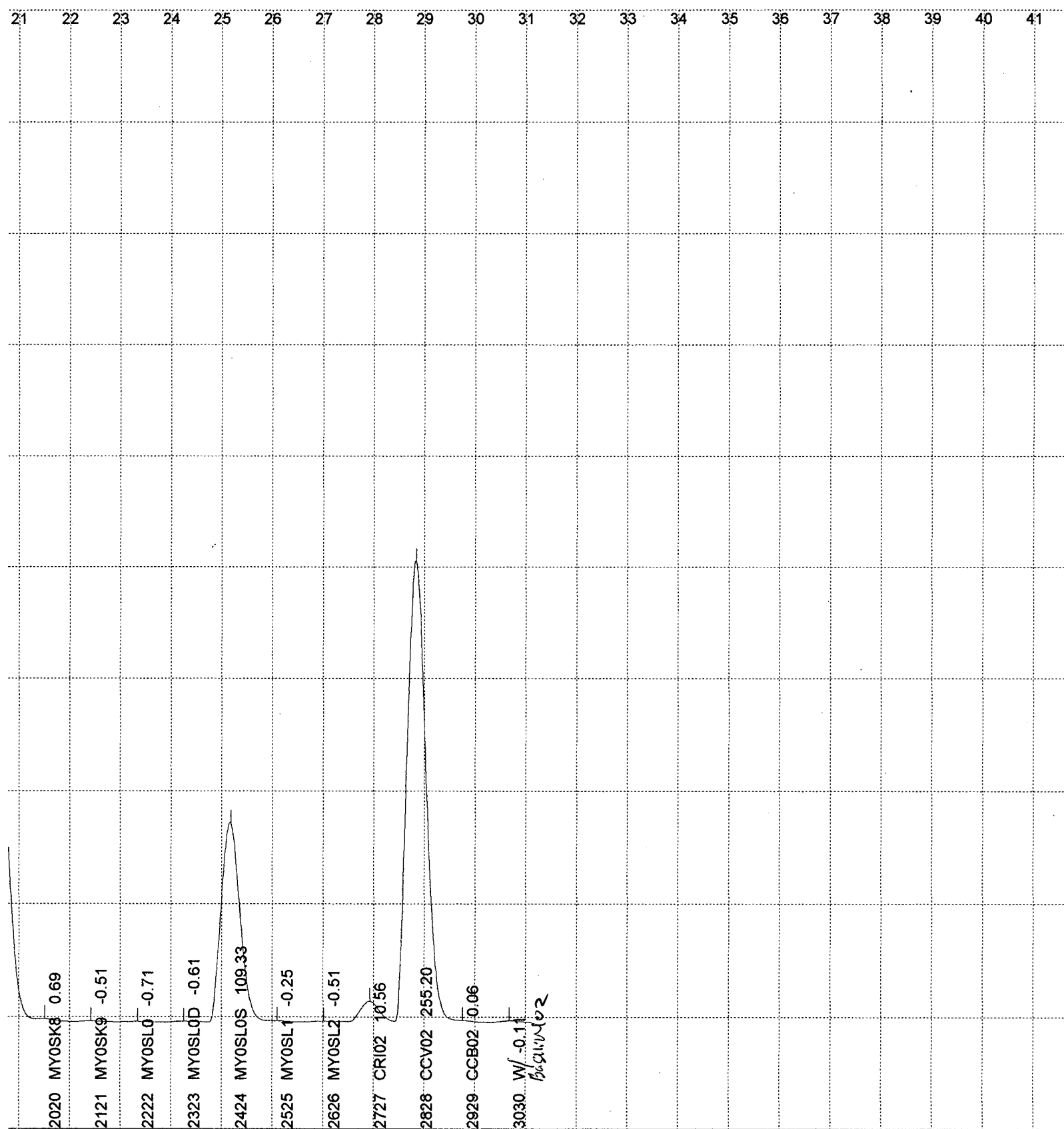
Supervisor:  Date: 3/26/03  
Analyst:  Date: 3-26-03

C:\FASPAC\DATA\IC032103A.ACF System 1 Channel 1 [CN]

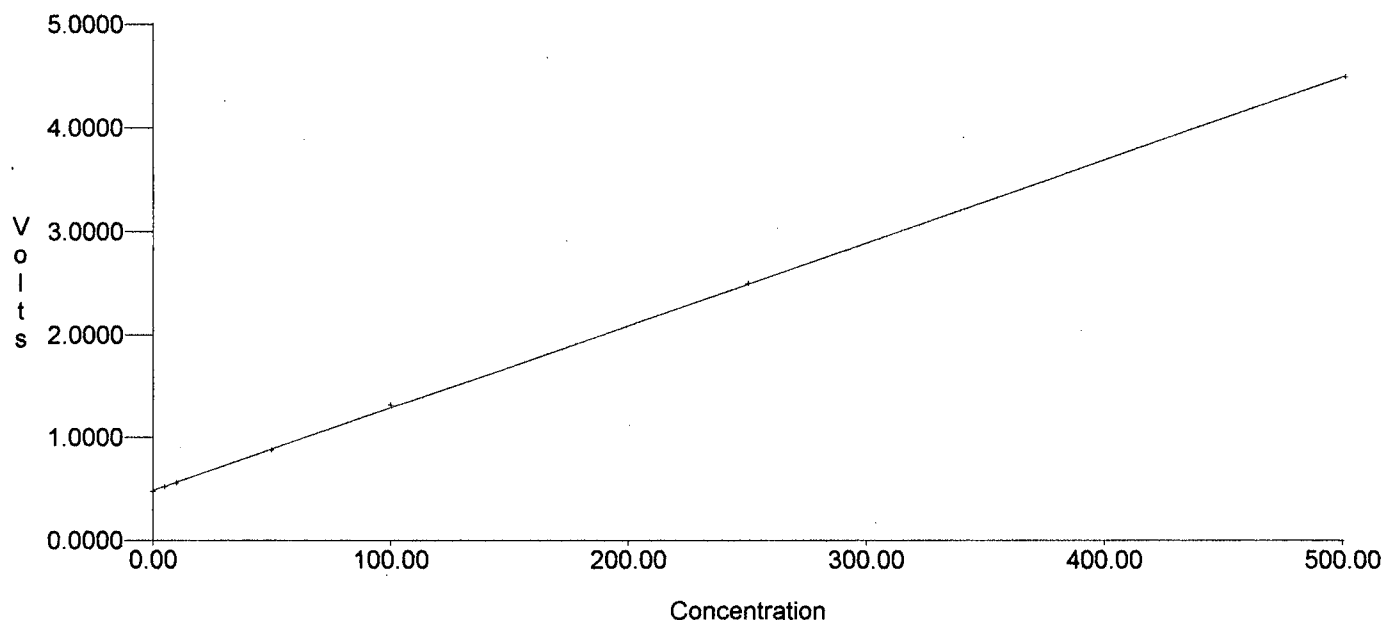


REVIEWED  
 By: *[Signature]*

C:\FASPAC\DATA\IC032103A.ACF System 1 Channel 1 [CN]



## Calibration for CN, file C032103A



1st Order  $Y=BX+A$   
 $B=0.01$   $A=0.49$   
Correlation=0.999964

**REVIEWED**By: 

# Bonner Analytical Testing Company

## Cyanide Soil Sample Preparation

026

SDGNumber: MY0SK8

Batch Number: 032130A

Case Number: 31520

Method: DS2

Lab ID	EPA Sample No	Sample Description	Initial Weight gram	Final Volume ml.	pH	Color Before	Color After	Texture	Sulfides	Sulfate	Oxidiz. Agent	Artifacts
1	ICV	ICV 01		50	12	C	C		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	MIDRANGE	MIDRANGE 050 Midrange Standard		50	12	C	C		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	PBS	PBS 01	1.01	50	12	W	W	M	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	LCSS	LCSS 01	0.99	50	12	W	W	C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5	BT82808	MY0SK8	1.01	50	12	B	W	F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6	BT82809	MY0SK9	0.99	50	12	B	Y	F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	BT82810	MY0SL0	1.01	50	12	B	Y	F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	BT82810D	MY0SL0D	1	50	12	B	Y	F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	BT82810S	MY0SL0S	0.99	50	12	B	Y	F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10	BT82811	MY0SL1	1.01	50	12	B	Y	F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11	BT82812	MY0SL2	1	50	12	B	Y	F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
15				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
16				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
17				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
18				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
19				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
20				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
21				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
22				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
23				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
24				50	12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**REVIEWED**  
By: *[Signature]*

Analyst 1: *[Signature]*  
Supervisor 1: *[Signature]*

Date: 3-21-03  
Date: 3/26/03



**Bonner Analytical Testing Company**  
**Cyanide Soil Sample Preparation**

027

SDGNumber: MY0SK8

Batch Number: 032130A

Case Number: 31520

Method: DS2

Reagent	Concentration	Reagent ID	Vendor
Sodium Hydroxide	0.25 N	BA -032003	Working Standard
Sulfuric Acid	18.0 N	BA -030303	Working Standard
Magnesium Chloride	NA	BA -030303	Working Standard
Sulfamic Acid	NA	BA -	Working Standard
Lead Carbonate	Neat	NA	NA
Ascorbic Acid	Neat	NA	NA
Delonized Water	Neat	Inhouse	BATCO

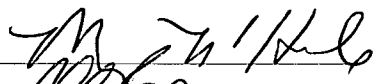
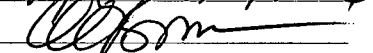
Standard	Vendor Standard	Lot Number	Concentration	Amt Spike
Initial Calibration Verification	EPA	0500	9900 ppb	0.5 mL
Laboratory Control Standard	EPA	0899 ✓	9.6 mg/Kg ✓	1.0 g
Matrix Spike	ERA	03122	1000 ppm	0.005 mL
Midrange Standard	ERA	03122	1000 ppm	0.0125

	Start of Run	End of Run	Start of Run	End of Run	Start of Run	End of Run	Start of Run	End of Run
Midi-Distillation:	03							
Temperature:	125	125	0	0	0	0	0	0
Time:	9:20	10:50						

Comments:

**REVIEWED**  
 By: 

Analyst 1:

  
 Supervisor 1: 

Date:

3-21-03

Date:

3/26/03

## Bonner Analytical Testing Company

## Total Solids

SDG No: MY0SK8

Case No.: 31520

Batch No.: T- 032103A

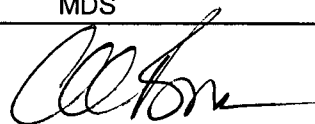
EPA Sample ID	MY0SL0		MY0SK8	MY0SK9	MYOSL1	MY0SL2					
Laboratory ID	BT82810		BT82808	BT82809	BT82811	BT82812					
Pan ID	1	1 Dup	2	3	4	5	6	7	8	9	10
Pan Weight	0.9734	0.9707	0.9767	0.9754	0.9734	0.9702					
Pan + Sample (Initial)	5.6207	5.8433	5.6314	5.4209	5.6662	5.5301					
Sample Weight (initial)	4.6473	4.8726	4.6547	4.4455	4.6928	4.5599	0.0000	0.0000	0.0000	0.0000	0.0000
Pan + Sample (Final)	5.2337	5.4478	5.3487	5.0802	4.8327	4.7510					
Sample Weight (Final)	4.2603	4.4771	4.3720	4.1048	3.8593	3.7808	0.0000	0.0000	0.0000	0.0000	0.0000
Total Solids	91.67%	91.88%	93.93%	92.34%	82.24%	82.91%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
% RSD	0.23%										

Sample ID											
Laboratory ID											
Pan ID	11	12	13	14	15	16	17	18	19	20	
Pan Weight											
Pan + Sample (Initial)											
Sample Weight (initial)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Pan + Sample (Final)											
Sample Weight (Final)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total Solids	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Analyst: MDS

Date: 3/22/2003

Supervisor:



Date:

3/24/03

# Bonner Analytical Testing Company

## Total Solids

SDG No: MY0SK8

Case No.: 31520

Batch No.: T- 032103A

Date Began: 03/21/03

Time Began: 11:55

Temperature Began: 103.7

Date Finished: 03/22/03

Time Finished: 12:00

Temperature Finished: 104.2

EPA Sample ID	MY0SL0		MY0SK8	MY0SK9	MY0SL1	MY0SL2					
Laboratory ID	BT82810		BT82808	BT82809	BT82811	BT82812					
Pan ID	1	1 Dup	2	3	4	5	6	7	8	9	10
Pan Weight	0.9734	0.9707	0.9767	0.9754	0.9734	0.9702					
Pan + Sample (Initial)	5.6207	5.8433	5.6314	5.4209	5.6662	5.5301					
Sample Weight (initial)	4.6473	4.8726	4.6547	4.4455	4.6928	4.5599	0.0000	0.0000	0.0000	0.0000	0.0000
Pan + Sample (Final)	5.2337	5.4478	5.3487	5.0802	4.8327	4.7510					
Sample Weight (Final)	4.2603	4.4771	4.3720	4.1048	3.8593	3.7808	0.0000	0.0000	0.0000	0.0000	0.0000
Total Solids	91.67%	91.88%	93.93%	92.34%	82.24%	82.91%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
% RSD	0.23%										

Sample ID											
Laboratory ID											
Pan ID	11	12	13	14	15	16	17	18	19	20	
Pan Weight											
Pan + Sample (Initial)											
Sample Weight (initial)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pan + Sample (Final)											
Sample Weight (Final)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total Solids	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Analyst: MDS

Date: 3/22/2003

Supervisor:

Date:

INSERTED:  
6-16-03  
SK/ESAT

028A

48  
200**FedEx** USA Airbill  
ExpressFedEx  
Tracking  
Number

8358 5942 6468

**1 From** This portion can be removed for Recipient's records.Date 3/18/05 FedEx Tracking Number 835859426468Sender's Name Amanda K. Cohen Phone 818 382-1800Company WESTON SOLUTIONS INCAddress 14724 VENTURA BLVD STE 1000

Dept./Floor/Suite/Room

City SHERMAN OAKS State CA ZIP 91403**2 Your Internal Billing Reference**20074.025.066.0004**3 To**Recipient's Name Chris Bonner Phone 601 264-2854Company Bonner AnalyticalAddress 2703 Oak Grove Rd.

To "HOLD" at FedEx location, print FedEx address.

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

City Hattiesburg State MS ZIP 39402NO POUCH NEEDED.  
See back for peel and stick application instructions.

RECIPIENT: PEEL HERE

Form  
I.D. No.

0215

Recipient's Copy

**4a Express Package Service**

Packages up to 150 lbs.

Delivery commitment may be later in some areas.

☒ FedEx Priority Overnight Next business morning ☐ FedEx Standard Overnight Next business afternoon ☐ FedEx First Overnight Earliest next business morning delivery to select locations☐ FedEx 2Day Second business day ☐ FedEx Express Saver Third business day  
FedEx Envelope rate not available. Minimum charge: One-pound rate**4b Express Freight Service**

Packages over 150 lbs.

Delivery commitment may be later in some areas.

☐ FedEx 1Day Freight\* Next business day ☐ FedEx 2Day Freight Second business day ☐ FedEx 3Day Freight Third business day

\* Call for Confirmation.

**5 Packaging**

\* Declared value limit \$500

☐ FedEx Envelope\* ☐ FedEx Pak\* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak ☒ Other**6 Special Handling**

Include FedEx address in Section 3.

☐ SATURDAY Delivery Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes ☐ HOLD Weekday at FedEx Location Not available for FedEx First Overnight ☐ HOLD Saturday at FedEx Location Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods?

One box must be checked.

☒ No ☐ Yes As per attached Shipper's Declaration ☐ Yes Shipper's Declaration not required ☐ Dry Ice Dry Ice, 9 UN 1845 x kg ☐ Cargo Aircraft Only**7 Payment Bill to:**

Enter FedEx Acct. No. or Credit Card No. below.

Obtain Recip. Acct. No. ☐☒ Sender Acct. No. in Section 4 will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Total Packages

Total Weight


Total Charges


\*Our liability is limited to \$100 unless you declare a higher value. See the FedEx Service Guide for details.

**8 Release Signature** Sign to authorize delivery without obtaining signature.By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.  
**Questions? Visit our Web site at fedex.com**  
or call 1.800.Go.FedEx® 800.463.3339.

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447

 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY OFFICIAL SAMPLE SEAL	SAMPLE NO.	DATE 3-19-03	SEAL BROKEN BY DATE	EPA FORM 7500-2(R7-75)
	SIGNATURE <i>Amelia Rice</i>			
	PRINT NAME AND TITLE (Inspector, Analyst or Technician)			

 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY OFFICIAL SAMPLE SEAL	SAMPLE NO.	DATE 3-19-03	SEAL BROKEN BY DATE	EPA FORM 7500-2(R7-75)
	SIGNATURE <i>Amelia Rice</i>			
	PRINT NAME AND TITLE (Inspector, Analyst or Technician)			

**FedEx**  
enp# 54017 19MAR03

**PRIORITY OVERNIGHT** THU 1

Ph TRK# 8358 5942 6468 FORM 0215 Deliver By 20MAR03 AA

39402 -MS -US MSY

XX HBGA

No. Add

Barcode



File Number	Project Number	Login Date	Sample Identification
BT2791	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2792	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2793	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2794	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2795	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2796	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2797	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2798	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2799	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2800	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2801	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2802	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2803	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2804	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2805	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2806	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2807	005232	3/18/03	PCBS A. 319 CS P. D. TC
BT2808		3/21/03	CLP Case 31520 SDG MYOSK8 Sample MYOSK8
BT2809			MYOSK9
BT2810			MYOSL0 (α)
BT2811			MYOSL1
BT2812			MYOSL2
BT2813			MYOSL3
BT2814			MYOSL4
BT2815			MYOSL6
BT2816			MYOSL7
BT2817			MYOSL8
BT2818			MYOSL9
BT2819			MYOSM0

Flow  
" "  
PCBs Pb  
OS

BT2808 CN soil  
water

# SAMPLE RECEIPT FORM

032 5078

Client:

CLP

Date:

3-20-03

Sample Description:

soil

SDG#:

MYOSK8

Case#:

31520

1) Does this project fall under NPDES, RCRA, CLP, Litigation or other EPA guidelines.	NA	<input checked="" type="radio"/> YES	NO
2) Did Cooler come with airbill/sticker? Circle carrier: UPS, <u>FedEx</u> , other: _____ If YES, enter airbill number here: <u>835859426468</u>	NA	<input checked="" type="radio"/> YES	NO
3) Are custody seals on the outside of the cooler intact? Custody Seal#: <u>N/A</u>	NA	<input checked="" type="radio"/> YES	NO
Custody Seal#: <u>N/A</u> Custody Seal#: _____	NA	<input checked="" type="radio"/> YES	NO
4) Are all bottles sealed in separate plastic bags?	NA	<input checked="" type="radio"/> YES	NO
5) Are samples requiring no headspace, headspace free?	<input checked="" type="radio"/> NA	<input type="radio"/> YES	NO
6) Packing Material: <u>Bubblewrap</u> , peanuts, vermiculite, other: <u>ice</u>		<input checked="" type="radio"/> YES	NO
7) Are chains of custody filled out properly? (ink, signed, dates, etc.)		<input checked="" type="radio"/> YES	NO
8) Are all bottle labels complete and agree with COC? (ID, time, date, preservation?)		<input checked="" type="radio"/> YES	NO
9) Were all bottles received intact?		<input checked="" type="radio"/> YES	NO
10) Were correct containers used for the tests indicated? Who's: BATCO/ <u>Client</u>		<input checked="" type="radio"/> YES	NO
11) Was a sufficient aliquot of sample sent for tests indicated?		<input checked="" type="radio"/> YES	NO
12) Are samples within holding times for requested analysis?		<input checked="" type="radio"/> YES	NO

**13) Sample Preservation?**

A) If samples were collected within 6 hours of receipt, has chilling begun?

NA	<input type="radio"/> YES	<input type="radio"/> NO
----	---------------------------	--------------------------

B) If samples were received beyond 6 hours of collection:

NA	<input checked="" type="radio"/> YES	<input type="radio"/> NO
----	--------------------------------------	--------------------------

1) Is there a temperature blank?

NA	<input checked="" type="radio"/> YES	<input type="radio"/> NO
----	--------------------------------------	--------------------------

2) If Yes, are samples received at 4°C?

NA	<input checked="" type="radio"/> YES	<input type="radio"/> NO
----	--------------------------------------	--------------------------

3) If No, are samples on ice?

NA	<input type="radio"/> YES	<input type="radio"/> NO
----	---------------------------	--------------------------

4) Temperature? 2.5

C) Have samples been checked for correct preservation?

NA	<input checked="" type="radio"/> YES	<input type="radio"/> NO
----	--------------------------------------	--------------------------

1) If sample/s doesn't meet preservation, list deviation?

---



---



---

**14) Describe "NO" items for the above if # 1) response is NA or YES**

---



---



---

Is there a Corrective Action and/or Client Contact form attached?

YES	<input checked="" type="radio"/> NO	
-----	-------------------------------------	--

Signature: \_\_\_\_\_

Winters

Rev No. 1.3

Date: 09/23/02

## BONNER Scheduling Notification Form for the week of 03/17/03

Contract #: 68W02067 ILM05.2					Cost Lot/ DO #: A / 1		Base Price: 72.00	
Reg	Case	Samples Scheduled			Method	TA	Fax # for PR Special Requirements / Comments	
		No.	Matrix	Analyses				
5	31511	2	Water	ICP Metals/CN	ICP-AES	21	Not required	
9	31520	4	Soil	CN	ICP-AES	21	Not required	
9	31520	4	Water	CN	ICP-AES	21	Not required	

## Key

Ag - Silver      Ca - Calcium      Fe - Iron  
 Al - Aluminum      Cd - Cadmium      Hg - Mercury  
 As - Arsenic      CN - Cyanide      K - Potassium  
 Ba - Barium      Co - Cobalt      Mg - Magnesium  
 Be - Beryllium      Cr - Chromium      Mn - Manganese  
 BNA - Semivolatiles      Cu - Copper      Na - Sodium  
 ICP Metals - TAL Metals without Mercury (Hg)  
 Filtered - Samples are filtered in the field

Ni - Nickel      Se - Selenium  
 Pb - Lead      Tl - Thallium  
 PEST - Pesticides      V - Vanadium  
 PR - Preliminary Results      VOA - Volatiles  
 Sb - Antimony      Zn - Zinc

## ILM04.1 Analyses

TM - Total Metals      CN - Cyanide  
 DM - Dissolved Metals

Coordinator	Regions	Telephone	Email
Heather Bauer	1 and 2	703-264-9348	heather.bauer@dyncorp.com
Jessica Brown	4, 5, 8	703-264-9349	jessica.brown@dyncorp.com
Adam Carscadden	6 and 7	703-264-9512	adam.carscadden@dyncorp.com
Carolyn Mack	10 and QBs	703-264-9323	carolyn.mack@dyncorp.com
Holly Sturdavant	3 and 9	703-264-9526	holly.sturdavant@dyncorp.com

## SMO Preliminary Results

1) FAX to CCS at (703) 715-4820

2) Email in PDF format to either:

Eloise Danganan at eloise.danganan@dyncorp.com

Christian Jose at christian.jose@dyncorp.com

Please create separate SDGs for each subset of metals requested.  
 Unless indicated, Mercury (Hg) analysis is not required.



# BONNER SHIPPING NOTIFICATION FORM

Program: ILM05.2 ICP-AES										
Reg	Case Number	Date Shipped	Airbill Number	Samples Shipped No.	Matrix	Analysis	Sampling Method	TA	Fax Number for Preliminary Results	Case Complete
9	31520	3/19/2003	835859426468	5	Soil	CN	N/A	21	Not Required	Yes
9	31520	3/19/2003	835859426468	4	Water	CN	N/A	21	Not Required	Yes
9	31520	3/20/2003	835859426527	3	Water	CN	N/A	21	Not Required	Yes

Lab should verify all sample shipments and determine whether the TR/COCs received match shipping and scheduling information that is provided by SMO. Call your SMO coordinator if there is a problem with the information above.

For ILM05.2 samples:

- 1) Please create separate SDGs for each subset of TAL Metals requested.
- 2) Unless indicated, Mercury (Hg) analysis is not required.

## Key

Ag - Silver  
Al - Aluminum  
Sb - Antimony  
As - Arsenic  
Ba - Barium  
Be - Beryllium

BNA - Semivolatiles  
Ca - Calcium  
Cd - Cadmium  
CN - Cyanide  
Co - Cobalt  
Cr - Chromium

Cu - Copper  
Fe - Iron  
Hg - Mercury  
K - Potassium  
Mg - Magnesium  
Mn - Manganese

Na - Sodium  
Ni - Nickel  
Pb - Lead  
PEST - Pesticides  
PR - Preliminary Results

Se - Selenium  
Tl - Thallium  
V - Vanadium  
VOA - Volatiles  
Zn - Zinc

## ILM04.1 Analyses

TM - Total Metals  
DM - Dissolved Metals  
CN - Cyanide

ICP Metals - TAL Metals without Mercury (Hg)  
Filtered - Samples have been filtered in the field

Coordinator	Regions	Telephone	Email
Heather Bauer	1 and 2	703-264-9348	heather.bauer@dyncorp.com
Jessica Brown	4, 5, 8	703-264-9349	Jessica.brown@dyncorp.com
Adam Carscadden	6 and 7	703-264-9512	adam.carscadden@dyncorp.com
Carolyn Mack	10 and QBs	703-264-9323	carolyn.mack@dyncorp.com
Holly Sturdavant	3 and 9	703-264-9526	holly.sturdavant@dyncorp.com

CCS FAX Number for preliminary result is (703) 715-4820  
CCS Secondary Fax Number for preliminary result is (703) 264-9236

**Case is Complete**



Contract Laboratory Program

### Sample Delivery Group (SDG) Cover Sheet

SDG Number MYOSK8

• ICP-AES Analysis

• ICP-MS Analysis

Laboratory Name Bonner Analytical Testing Laboratory Code BONNERContract No. 68W02067Case No. 31520Analysis Price \$ 72<sup>00</sup>SDG Turnaround 21 days

## USEPA Sample Numbers in SDG (Listed in Numerical Order)

1) MYOSK8	7) _____	13) _____	19) _____
2) MYOSK9	8) _____	14) _____	20) _____
3) MYOSL0	9) _____	15) _____	21) _____
4) MYOSL1	10) _____	16) _____	22) _____
5) MYOSL2	11) _____	17) _____	23) _____
6) _____ <i>12</i> <i>3-21-03</i>	12) _____	18) _____	24) _____

*12*  
*3-21-03*

First Sample in SDG

MYOSK8

Last Sample in SDG

MYOSL2

First Sample Receipt Date

3-20-03

Last Sample Receipt Date

3-20-03

**Note:** There are a maximum of 20 **field** samples (excluding PE samples) in an SDG. Attach the TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature

Yhawie Rinko

Date

3-21-03

**FedEx** *USA Airbill*  
Express

 FedEx  
Tracking  
Number

8358 5942 6480

**1 From** Please print and press hard.

 Date 3-21-03 Sender's FedEx Account Number 1032-6821-4

 Sender's Name \_\_\_\_\_ Phone (818) 382-1800

 Company WESTON SOLUTIONS INC

 Address 14724 VENTURA BLVD STE 1000

 City SHERMAN OAKS State CA ZIP 91403
**2 Your Internal Billing Reference** 20074.025.066.0004

First 24 characters will appear on invoice.

**3 To** Recipient's Name Amanda Cohan Phone (818) 382-1800

 Company WESTON

 Address 14724 Ventura Blvd. 1000

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address \_\_\_\_\_

 City Sherman Oaks State CA ZIP 91403

 Try online shipping at [fedex.com](http://fedex.com)

By using this Airbill you agree to the service conditions on the back of this Airbill and in our current Service Guide, including terms that limit our liability.

 Questions? Visit our Web site at [fedex.com](http://fedex.com)  
or call 1.800.Go.FedEx® 800.463.3339.

0224449423

SLA11

①

Form  
I.D. No.

0215

Sender's Copy

**4a Express Package Service**

Packages up to 150 lbs.

Delivery commitment may be later in some areas.

☐ FedEx Priority Overnight  
Next business morning

☒ FedEx Standard Overnight  
Next business afternoon

☐ FedEx First Overnight  
Earliest next business morning  
delivery to select locations

☐ FedEx 2Day  
Second business day  
FedEx Envelope rate not available. Minimum charge: One-pound rate

☐ FedEx Express Saver  
Third business day

**4b Express Freight Service**

Packages over 150 lbs.

Delivery commitment may be later in some areas.

☐ FedEx 1Day Freight\*  
Next business day

☐ FedEx 2Day Freight  
Second business day

☐ FedEx 3Day Freight  
Third business day

\*Call for Confirmation.

**5 Packaging**

\*Declared value limit \$500

☐ FedEx Envelope\*

☐ FedEx Pak\*  
Includes FedEx Small Pak, FedEx  
Large Pak, and FedEx Sturdy Pak

☒ Other

**6 Special Handling**

Include FedEx address in Section 3.

☐ SATURDAY Delivery  
Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select ZIP codes

☐ HOLD Weekday  
at FedEx Location  
NOT Available for  
FedEx First Overnight

☐ HOLD Saturday  
at FedEx Location  
Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations

Does this shipment contain dangerous goods?

One box must be checked.

☐ No

☐ Yes  
As per attached  
Shipper's Declaration

☐ Yes  
Shipper's Declaration  
not required

☐ Dry Ice  
Dry Ice 9, UN 1845

☐ Cargo Aircraft Only

Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.

**7 Payment Bill to:**

Enter FedEx Acct. No. or Credit Card No. below.

☐ Sender  
Acct. No. in Section  
1 will be billed.

☒ Recipient

☐ Third Party

☐ Credit Card

☐ Cash/Check

 FedEx Acct. No.  
Credit Card No.

1032-6821-4

 Exp.  
Date

Total Packages

Total Weight

Total Declared Value†

\$ .00

†Our liability is limited to \$100 unless you declare a higher value. See back for details.

FedEx Use Only

**8 Release Signature**

Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

447

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PULL AND RETAIN THIS COPY BEFORE AFFIXING TO THE PACKAGE.



**FedEx** USA Airbill  
Express

 FedEx  
Tracking  
Number

8390 8653 1294

**1 From** Please print and press hard.

 Date 3-21-03 Sender's FedEx Account Number 1084-5665-5

 Sender's Name Mike Bonner Phone (601) 264-2854

 Company BONNER ANALYTICAL TESTING COM

 Address 2703 OAK GROVE RD Dept./Floor/Suite/Room

 City HATTIESBURG State MS ZIP 39402-8946
**2 Your Internal Billing Reference**

 First 24 characters will appear on invoice. resubmittal MBOHB7 + SDG COVER  
MYOSKB, MYOSL3
**3 To**

 Recipient's Name SMD Mailroom Phone (703) 7154416

 Company Dyncorp

Address To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

 Address 2000 Edmund Halley Dr 5th Floor Dept./Floor/Suite/Room

 City Reston State VA ZIP 20191-3400

 Try online shipping at [fedex.com](http://fedex.com)

By using this Airbill you agree to the service conditions on the back of this Airbill and in our current Service Guide, including terms that limit our liability.

 Questions? Visit our Web site at [fedex.com](http://fedex.com)  
or call 1.800.Go.FedEx® 800.463.3339.

0236717246

 Form  
I.D. No.

0215

Sender's Copy

**4a Express Package Service**

 Packages up to 150 lbs.  
Delivery commitment may be later in some areas.

☒ FedEx Priority Overnight Next business morning  
☐ FedEx Standard Overnight Next business afternoon  
☐ FedEx First Overnight Earliest next business morning delivery to select locations  
☐ FedEx 2Day Second business day  
☐ FedEx Express Saver Third business day  
 FedEx Envelope rate not available. Minimum charge: One-pound rate

**4b Express Freight Service**

 Packages over 150 lbs.  
Delivery commitment may be later in some areas.

☐ FedEx 1Day Freight\* Next business day  
☐ FedEx 2Day Freight Second business day  
☐ FedEx 3Day Freight Third business day

\* Call for Confirmation.

**5 Packaging**

\* Declared value limit \$500

☒ FedEx Envelope\*  
☐ FedEx Pak\* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak  
☐ Other

**6 Special Handling**

Include FedEx address in Section 3.

☐ SATURDAY Delivery Available ONLY for FedEx Priority Overnight and FedEx 2Day to select ZIP codes  
☐ HOLD Weekday at FedEx Location NOT Available for FedEx First Overnight  
☐ HOLD Saturday at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods?

☒ No One box must be checked.  
☐ Yes As per attached Shipper's Declaration  
☐ Yes Shipper's Declaration not required  
☐ Dry Ice Dry Ice, 9, UN 1845 x \_\_\_\_\_ kg  
 Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging. ☐ Cargo Aircraft Only

**7 Payment Bill to:**

Enter FedEx Acct. No. or Credit Card No. below.

☒ Sender Acct. No. in Section 1 will be billed.  
☐ Recipient  
☐ Third Party  
☐ Credit Card  
☐ Cash/Check

 FedEx Acct. No.  
Credit Card No.

 Exp.  
Date

Total Packages

Total Weight

Total Declared Value†

1

\$ .00

†Our liability is limited to \$100 unless you declare a higher value. See back for details.

FedEx Use Only

**8 Release Signature**

Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

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PULL AND RETAIN THIS COPY BEFORE AFFIXING TO THE PACKAGE.

# Bonner Analytical Testing Company

## Inhouse Chain of Custod

SDG Num: MY0SK8

Type: Soil

	LabID	EPA Sample Number	Sample Description
1	BT82808	MY0SK8	MY0SK8
2	BT82809	MY0SK9	MY0SK9
3	BT82810	MY0SL0	MY0SL0
4	BT82810D	MY0SL0D	MY0SL0D
5	BT82810S	MY0SL0S	MY0SL0S
6	BT82811	MY0SL1	MY0SL1
7	BT82812	MY0SL2	MY0SL2
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Name: <u>Laurie Rinko</u>	Signature: <u>Laurie Rinko</u>	Date/Time: <u>3-20-03/1045</u>	Purpose: <u>Storage</u>
Name: <u>Mary Mithel</u>	Signature: <u>M. Mithel</u>	Date/Time: <u>3-21-03/0830</u>	Purpose: <u>CN</u>
Name: <u>Mary Mithel</u>	Signature: <u>M. Mithel</u>	Date/Time: <u>3-21-03/0940</u>	Purpose: <u>Storage</u>
Name: <u>Math Smith</u>	Signature: <u>Math Smith</u>	Date/Time: <u>3-21-03/1545</u>	Purpose: <u>TS</u>
Name: <u>Math Smith</u>	Signature: <u>Math Smith</u>	Date/Time: <u>3-21-03/1555</u>	Purpose: <u>Storage</u>
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____
Name: _____	Signature: _____	Date/Time: _____	Purpose: _____

M = Metals

HG = Mercury

CN = Cyanide

TS = Total Solids

D = Dispo

## STANDARDS LOG

009

for 01 Astoria 01 / 02 Daily AnalysisAnalyst: Mary MiltaleDate: 3-21-03

Description	EPA ID	Amount Spiked	Volume Made	Manufacturer	Initial Conc.	Lot#	Date Lot Expires	Final Conc.
Calibration Working Standard	S-WS-A	1.0 mL	100 mL	ERA ✓	1000 ppm	03122	Dec-04	10 ppm
Calibration Working Standard	S-WS-B	10.0 mL	100 mL	S-WS-A	10 ppm	NA	24 hours	1 ppm
Calibration Blank	S0	NA	50 mL	In-house	NA	BA-032003	NA	NA
Calibration	S5	0.25 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	5.0 ppb
Calibration	S10	0.50 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	10 ppb
Calibration	S50	2.5 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	50 ppb
Calibration	S100	5.0 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	100 ppb
Calibration	S250	12.5 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	250 ppb
Calibration	S500	25.0 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	500 ppb
Range	Midrange	1.25 mL	50 mL	S-WS-A	10 ppm	NA	24 hours	250 ppb
Calibration Verification	ICV	0.5 mL	50 mL	EPA ✓	9900 ppb	0400	NA	99 ppb
Calibration Blank	ICB	NA	50 mL	In-house	NA	BA-032003	Weekly	NA
Contract Required Quant. Limit	CRI	0.5 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	10 ppb
Continuing Calibration Verification	CCV	12.5 mL	50 mL	S-WS-B	1 ppm	NA	24 hours	250 ppb
Continuing Calibration Blank	CCB	NA	50 mL	In-house	NA	BA-032003	Weekly	NA

Calculation for Dilutions:  $(\text{Conc.} - \text{What You Have}) \times (\text{Vol.} - \text{What You Have}) = (\text{Conc.} - \text{What You Want}) \times (\text{Vol.} - \text{What You Want})$ 

All units must be the same

Reviewed By: 

Supervisor

Date: 3/26/03

REVIEWED

By: Rev I.1  
10/04/02  
CMB

## REAGENTS PREPARATION LOG

023

## 0.25N Sodium Hydroxide Solution

Preparation Date: 03/20/03 Prepared By: MLM Batch No.: BA-032603

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	3.5L	BATCO	NA	NA	NA
Sodium Hydroxide	Neat	35g	Baddley	Z114	2-28-02	NA

Instrument: AP 01 / 02 - & DistillationFinal Volume: 3.5LConcentration: 0.25NUsed For: Cyanide Distillation & DevelopmentExpiration Date: NAComments: 10 grams to 1 Liter = 0.25N. \*\*\* Must be filtered with 0.45um Titan Nylon Filter.35.0135g NaOHReviewed By: MLMSupervisor/Date 3/24/03REVIEWED  
By: [Signature]

## REAGENTS PREPARATION LOG

024

## 1.25N Sodium Hydroxide Solution

Preparation Date: 03/20/03 Prepared By: MLM Batch No.: BA-032003

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	100 mL	BATCO	NA	NA	NA
Sodium Hydroxide	Neat	5.0 g	Baddley	2114	2-28-02	NA

Instrument: AP 01 / 02 - & DistillationFinal Volume: 100 mLConcentration: 1.25 NUsed For: Standards Prep.Expiration Date: NAComments: 5.0 grams to 100 mL = 1.25N.5.0311 g NaOHReviewed By: 

Supervisor/Date

3/26/03

REVIEWED

By: 



## REAGENTS PREPARATION LOG

002

## 18N Sulfuric Acid Solution

Preparation Date: 3-3-03 Prepared By: MLMBatch No.: BA-030303

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	1 L	BATCO	NA	NA	NA
Sulfuric Acid	Neat	EM Science 3-3 MLM	EM Science	K27016402 939	3-3-03	NA

Instrument: DistillationFinal Volume: 2LConcentration: 18 Normal / 50%Used For: Cyanide DistillationExpiration Date: 6 MonthsComments: \*\*\*Add 500 mL Acid to 500 mL Water\*\*\*Reviewed By: MLM

Supervisor/Date

3/26/03

REVIEWED

By: [Signature]

## REAGENTS PREPARATION LOG

028

## Chloramine-T Solution

Preparation Date: 03/21/03 Prepared By: MLM Batch No.: BA-032103

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	250mL	BATCO	NA	NA	NA
Chloramine	Neat	1.0g	Aldrich	03703ED	2-22-02	NA

Instrument: AP 01 or 02Final Volume: 250mLConcentration: NAUsed For: Cyanide AnalysisExpiration Date Prepare fresh dailyComments: 0.4 grams to 100mL \*\*Keep Refrigerated\*\*

\*\*\*Must filter with 0.45 Titan Nylon Filter Before Use\*\*\*

Reviewed By: 

Supervisor/Date

3/24/03

REVIEWED

By: 

044

003

**REAGENTS PREPARATION LOG****Magnesium Chloride Solution**Preparation Date: 3-3-03 Prepared By: MLM Batch No.: BA-030303

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	500mL	BATCO	NA	NA	NA
Magnesium Chloride - 6 H <sub>2</sub> O	Neat	255g	Fisher	027035	NA	NA

Instrument: DistillationFinal Volume: 500mLConcentration: NAUsed For: Cyanide DistillationExpiration Date: 3 MonthsComments: Add 510 grams to 1000 mLs or DI Water.255.06g MgCl<sub>2</sub>Reviewed By: CEM 3/26/03

Supervisor/Date

REVIEWED

By: [Signature]

## REAGENTS PREPARATION LOG

026

## Phosphate Buffer

Preparation Date: 03/26/03 Prepared By: MLM Batch No.: BA-032003

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	500 mL	BATCO	NA	NA	NA
Sodium Phosphate	Neat	69g	Beddley	B 940	1-29-03	NA
Brig-35	30%	3.0 mL	Astoria Pacific	220302	1-30-03	March 05

Instrument: AP 01 or 02Final Volume: 500 mLConcentration: NAUsed For: Cyanide DevelopmentExpiration Date 3 MonthsComments: Add 69 g. to 500 mL DI H<sub>2</sub>O. Filter with 0.45 Nylon then add 3 ml Brij-3569.08g NaPO<sub>4</sub>Reviewed By: MLM

Supervisor/Date

3/26/03

REVIEWED

By: [Signature]

## REAGENTS PREPARATION LOG

## Pyridine-barbituric Acid Solution

025

Preparation Date: 03/20/03 Prepared By: MLMBatch No.: BA-032003

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	500mL	BATCO	NA	NA	NA
Barbituric Acid	Neat.	7.5g	Buddley	M037	12-10-02	NA
Pyridine	Neat	37.5mL	Fisher	020277	2-17-03	NA
Hydrochloric Acid	Neat	7.5mL	Fisher	002719	5-22-01	NA

Instrument: AP 01 / 02Final Volume: 500mLConcentration: NAUsed For: Cyanide AnalysisExpiration Date: WeeklyComments: Dissolve 7.5g Barbituric to minimal DI water. Add 37.5 ml Pyridine then 7.5 ml HClMix and allow to cool to room temp. Dilute to 500 mLs. NYLON FILTERED (0.45um). Keep @ 4o C7.4951g Barbituric AcidReviewed By: CLMSupervisor/Date 3/26/03

REVIEWED

By: [Signature]

## REAGENTS PREPARATION LOG

004

## Start Up Solution

Preparation Date: 3.3.03 Prepared By: MLMBatch No.: BA-030303

Reagents	Conc. mg/L	Amount	Supplier	Lot Number	Received Date	Expiration Date
Deionized Water	Neat	<u>500mL</u>	BATCO	NA	NA	NA
Brij - 35	30%	<u>3.0mL</u>	Astoria Pacific	<u>220302</u>	<u>1-30-03</u>	<u>March 2005</u>

Instrument: AP 01 / 02Final Volume : 500mLConcentration: NAUsed For: DevelopmentExpiration Date 1 MonthComments Add 3 mLs Brij-35 to 500 ml DI WaterReviewed By: CLB

Supervisor/Date

3/26/03

REVIEWED

By: CLB

## Bonner Analytical Testing Co.

## Cyanide Analytical Run Log

Report for C032103A.ACF [S1]

SDG No.: MY0SK8

Standards Prep Date: 03.21.03

Date: 3/21/2003

Case No.: 31520

Standards Log Page No.: 9

Base Configuration: clph20

Analyst: Mary McHale

Sam#	Identifier	Time	Test Name	Sam#	Identifier	Time	Test Name
<del>1</del>	<del>ZZZZZZ</del>	<del>1:01:37 PM</del>	<del>CN</del>				
<del>2</del>	<del>ZZZZZZ</del>	<del>1:02:32 PM</del>	<del>CN</del>				
<del>3</del>	<del>ZZZZZZ</del>	<del>1:03:27 PM</del>	<del>CN</del>				
4	C1/S0	1:04:22 PM	CN				
5	C2/S5	1:05:17 PM	CN				
6	C3/S10	1:06:11 PM	CN				
7	C4/S50	1:07:07 PM	CN				
8	C5/100	1:08:01 PM	CN				
9	C6/250	1:08:56 PM	CN				
10	C7/S500	1:09:51 PM	CN				
11	ICV01	1:10:46 PM	CN				
12	ICB01	1:11:41 PM	CN				
13	W/Baseline 01	1:12:36 PM	CN				
14	MIDRANGE250	1:13:31 PM	CN				
15	CRI01	1:14:26 PM	CN				
16	CCV01	1:15:21 PM	CN				
17	CCB01	1:16:16 PM	CN				
18	PBS032103A	1:17:11 PM	CN				
19	LCSS032103A	1:18:06 PM	CN				
20	MY0SK8	1:19:01 PM	CN				
21	MY0SK9	1:19:55 PM	CN				
22	MY0SL0	1:20:51 PM	CN				
23	MY0SL0D	1:21:45 PM	CN				
24	MY0SL0S	1:22:40 PM	CN				
25	MY0SL1	1:23:35 PM	CN				
26	MY0SL2	1:24:30 PM	CN				
27	CRI02	1:25:25 PM	CN				
28	CCV02	1:26:20 PM	CN				
29	CCB02	1:27:15 PM	CN				
<del>30</del>	<del>W/Baseline 02</del>	<del>1:28:10 PM</del>	<del>CN</del>				

COOB NA  
3/24/03

REVIEWED

BY: 

**Laurie Rinko**

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**From:** Sturdavant, Holly [Holly.Sturdavant@dyncorp.com]  
**Sent:** Thursday, March 20, 2003 3:31 PM  
**To:** GenBonner (E-mail); Laurie Rinko (E-mail)  
**Cc:** Rich Freitas (E-mail); Steve Remaley (E-mail)  
**Subject:** Region 09 | Case 31520 | Lab BONNER | Issue Multiple | FINAL

Laurie,

Following are the resolutions from Region 9 regarding the issues for Case 31520.

Issue 1: The lab was scheduled to receive 4 each, soil & water. The lab received 5 soil & 4 water and the Case is not complete. Can the sampler provide a reason for over shipment?

Resolution 1: Per Region 9, three extra samples were required. This information was not known in advance. Please proceed with the analysis of all samples.

Issue 2: The custody seals are present and intact, but are not preprinted with numbers, just handwritten signature and date.

Resolution 2: The Region states that the samplers used regular custody seals as provided by Region 9. Please note the issue and proceed with the analysis.

Issue 3: No sample tags on the containers and none listed on the TR/COC.

Resolution 3: In accordance with previous direction from Region 9, Region 9 does not use sample tags. The lab will note the issue in the SDG narrative and proceed with the analysis of the samples.

Issue 4: Two of the groundwater samples (MY0SL3 and MY0SL4) seem to contain a lot of solid (soil) matter. Should the lab analyze these samples

as two-phase samples or as aqueous only?

Resolution 4: Per Region 9, the lab will analyze samples MY0SL3 and MY0SL4 as aqueous only samples. These are water samples with excess sediment entrained. The lab will note the issue in the SDG narrative and proceed with the analysis of the samples.

Issue 5: The TR/COC indicates that the shipment for case is not complete.

The lab will wait for remaining samples before assigning SDG numbers. Is this acceptable to Region 9?

Resolution 5: Per the Region, the lab will wait for remaining samples before assigning SDG numbers. The lab should receive the remaining samples for this Case tomorrow.

Issue 6: The lab QC sample designated was for soil samples only - no water lab QC sample was designated. The lab will wait for remaining samples before choosing QC for water samples, if none is listed on the next TR/COC.

Resolution 5: Per the Region, the water QC sample was shipped today. It



is  
MYOSM0.

Please note all issues in the SDG narrative and please let me know if you have any other questions or problems.

Thanks,  
Holly

Holly Rogers Sturdavant  
CSC  
CLP Coordinator for Regions 3 & 9  
703-264-9526  
holly.sturdavant@dyncorp.com or holly.rogers@dyncorp.com

-----Original Message-----

From: Freitas.Richard@epamail.epa.gov  
[mailto:Freitas.Richard@epamail.epa.gov]  
Sent: Thursday, March 20, 2003 3:51 PM  
To: Sturdavant, Holly  
Cc: Steve Remaley (E-mail)  
Subject: Re: Region 09 | Case 31520 | Lab BONNER | Issue Multiple

Response to questions

From: "Sturdavant, Holly"<Holly.Sturdavant@dyncorp.com>  
To: Richard Freitas/R9/USEPA/US@EPA, Steve Remaley/R9/USEPA/US@EPA  
cc:  
Subject: Region 09 | Case 31520 | Lab BONNER | Issue Multiple  
03/20/2003 10:50 AM

Rich,

Following is an email from BONNER regarding samples received for Case 31520.

The lab has the following issues with samples received.

Issue 1: The lab was scheduled to receive 4 each, soil & water. The lab received 5 soil & 4 water and the Case is not complete. Can the sampler provide a reason for overshipment?

Response: Three extra samples were required. Not known in advance.

Issue 2: The custody seals are present and intact, but are not preprinted with numbers, just handwritten signature and date.  
Respond: Unknown. Samplers used regular custody seals as provided by region

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Issue 3: No sample tags on the containers and none listed on the TR/COC.

This issue can be resolved using Region 9 Standard Answers.

Issue 4: Two of the groundwater samples (MYOSL3 and MYOSL4) seem to contain a lot of solid (soil) matter. Should the lab analyze these samples

as two-phase samples or as aqueous only?

Response: Analyze as aqueous only. These are water samples with excess sediment entrained.

Issue 5: The TR/COC indicates that the shipment for case is not complete.

The lab will wait for remaining samples before assigning SDG numbers.

Is  
this acceptable to Region 9?  
Response: Yes.

Issue 6: The lab QC sample designated was for soil samples only - no water lab QC sample was designated. The lab will wait for remaining samples before choosing QC for water samples, if none is listed on the next TR/COC.

Response: The QC samples were shipped today. It is MYOSMO.

Please advise on how the lab should proceed regarding issues 1,2,4,5, and 6.

Thanks,  
Holly

Holly Rogers Sturdavant  
CSC  
CLP Coordinator for Regions 3 & 9  
703-264-9526  
holly.sturdavant@dyncorp.com or holly.rogers@dyncorp.com

-----Original Message-----

From: Laurie Rinko [mailto:lrinko@batco.com]  
Sent: Thursday, March 20, 2003 11:49 AM  
To: Sturdavant, Holly  
Subject: Region 9 | Case 31520

Good Morning, Holly!

We received our shipment today, but there are a few discrepancies.

(1) We have not received a shipping notice, but the scheduling notice indicated 4 each, soil & water. We received 5 soil & 4 water.

(2) The custody seals are present and intact, but are not preprinted with numbers, just handwritten signature and date.

(3) No sample tags on the containers and none listed on the TR/COC.

(4) Two of the groundwater samples (MYOSL3 and MYOSL4) seem to contain alot of solid (soil) matter. Are we to analyze these samples as two-phase samples or as aqueous only?

(5) The TR/COC indicates that the shipment for case is not complete. I will wait for remaining samples before assigning SDG numbers.

(6) QC listed was for soil samples, but not for water samples. Again, I will wait for remaining samples before choosing QC for water samples, if none is listed on the next TR/COC.

I will wait for resolutions from you before proceeding with sample analysis.  
Thanks for your help.

Laurie Rinko  
Bonner Analytical  
Contract # 68W02067  
Case 31520